

1

METHOD FOR CHEMICAL TRANSFORMATION USING A MUTATED ENZYME

ABSTRACT OF THE DISCLOSURE

5

Methods for chemically transforming compounds using a mutated enzyme are provided, and more particularly a method for the production of an amino acid from a target 2-ketoacid, the production of an amine from a target ketone and the production of an alcohol from a target ketone. The methods comprise creating a mutated enzyme that catalyzes the reductive amination or transamination of the target 2-ketoacid or ketone or the reduction of the ketone and providing the mutated enzyme in a reaction mixture comprising the target 2-ketoacid or ketone under conditions sufficient to permit the formation of the desired amino acid, amine or alcohol to thereby produce the amino acid, amine or alcohol.

10

15

KMO/edb

KMO PAS389819 1*-10/24/01 10 10 AM

20

25

30

35